

Remarks/Arguments

As the Examiner is aware, this case is part of an original “bulk filing” by Motorola. Special IDS procedures have been approved for these cases, and in this case several 1449’s have kindly been considered. A supplemental IDS filing is also included with this filing.

Concerning the obviousness rejections over Guenzer, JP ‘070, Kaushik, and assorted facts and motivations assumed under a theory of judicial notice, these rejection are now moot in view of the amendment to the Claims, specifying a novel and unobvious semiconductor structure, as follows:

a monocrystalline silicon substrate;  
an amorphous oxide material in contact with the monocrystalline silicon substrate;

a monocrystalline metal oxide selected from the group consisting of alkaline earth metal titanates, alkaline earth metal zirconates, alkaline earth metal hafnates, alkaline earth metal tantalates, alkaline earth metal ruthenates, alkaline earth metal niobates, alkaline earth metal vanadates, alkaline earth metal tin-based perovskites, lanthanum aluminate, lanthanum scandium oxide, gadolinium oxide and mixtures thereof contacting the amorphous oxide material;

a compound semiconductor portion including a laser overlying the monocrystalline-substrate

In this regard, the claims herein have been amended in accordance with discussions held between Applicants and the Patent Office, and these amendments place this case in condition for allowance by describing, in addition to other patentable features, a novel and unobvious semiconductor structure which is, itself, both novel and unobvious – i.e., even the combination of art does not suggest such a structure. Note, for example, the requirement that the amorphous oxide material be in contact with the monocrystalline silicon substrate, and the requirement that the monocrystalline metal

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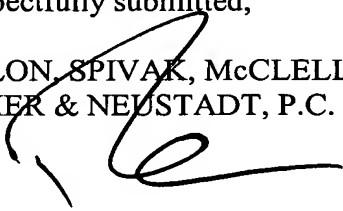
oxide contact the amorphous oxide material. These amendments have resulted from a study of the references cited in the various IDSs in this "bulk filing" and from associated discussions with Examiner Baumeister, SPE Chaudhury, SPE Flynn, SPE Lee, and others at the PTO.

As noted above, the amendment to the rejected claims places this case in condition for allowance. Accordingly, early notice to this effect is respectfully requested.

With regard to the double patenting rejection, it has been the practice of the Office to hold these rejections in abeyance until the indication of allowable subject matter. In this regard, Applicant is now preparing their response to the double patenting rejections in this series of cases, which is expected to address all such rejections.

Finally, and to the extent necessary, Applicants wish to make of record their disagreement with the taking of official notice herein, and here present the seasonable challenge noted in the MPEP. See MPEP 2144.03. Thus, the Office is now requested to support the facts, motivations and inferences used in the rejections with objective evidence. As the rejections currently stand, the taking of official notice is so all-encompassing that Applicant is essentially unable to respond.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.  


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Richard L. Treanor  
Attorney of Record  
Registration No. 36,379

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
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